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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,497	07/24/2003	Joong Gu Woo	KBPLP0104US	1982
23908	7590	11/01/2005	EXAMINER	
RENNER OTTO BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE NINETEENTH FLOOR CLEVELAND, OH 44115			FIGUEROA, NATALIA	
			ART UNIT	PAPER NUMBER
			2651	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,497

Applicant(s)

WOO, JOONG GU

Examiner

Natalia Figueroa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005 (amendment).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher (USPN 6,791,799) in view of Ditzik (USPN 6,421,235).

RE claim 1, Fletcher discloses a portable data storage device (abstract and figs. 2 and 5a), which equipped with a memory (fig. 2 and col. 10, lines 28-32), comprising a hard disk unit for mounting a robust hard disk of a very small size and a large capacity and controlling the same (fig. 2 and col. 11, lines 14-21 and 46-54 and col. 12, lines 25-48); a display unit for notifying a user of a state of the device (fig. 5a, col. 16, lines 41-50 and col. 24, lines 36-37); an interface unit for transferring information with an external device (col. 11, lines 2-9 and col. 24, lines 46-54); and a control unit for controlling each of the units (figs. 2 and 5a and col. 16, lines 41-52); and a memory unit equipped with a ROM or RAM for providing a memory required for the control unit (fig. 2 and col. 10, lines 28-32).

Fletcher fails to explicitly teach an interface unit for receiving a power supplied from the external device, wherein the power supplied is sufficient for operation of at least the hard disk unit. However, Ditzik discloses such on (abstract, figs. 4(a)-4(b), col. 3, lines 58-62, and col. 7, lines 31-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to improve the device as disclosed by Fletcher with the above

teachings from Ditzik, the motivation being an alternate source of power for the continuous performance of the device, hence maximum portability and performance.

RE claim 3, the combination of Fletcher and Ditzik is relied upon for the same reasons of rejection as stated above. Fletcher further discloses that the interface unit is any one of a USB interface, parallel interface, serial interface, PCMCIA interface and IEEE 1394 interface (col. 11, lines 2-9).

RE claim 4, Fletcher further discloses that when connected to a personal computer with the interface equipped, the interface is automatically recognized as a virtual drive without turning on and off the power (col. 24, lines 45-54).

RE claim 8, Fletcher further discloses that when the device is equipped with the USB or IEEE 1394 interface and a personal computer is booted in the USB or IEEE 1394 interface, the computing environment of the user is implemented as its (col. 11, lines 2-9 and col. 24, lines 46-54).

3. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher and Ditzik and further in view of Sherman (USPN 6,952,676).

RE claim 2, the combination of Fletcher and Ditzik is relied upon for the same reasons of rejection as stated above. Fletcher further discloses that the hard disk unit includes a very low power consumption and robustness (col. 10, lines 2-14 and col. 12, lines 25-54); a hard disk controller controlling the operation of the hard disk under control of the control unit (fig. 2 and col. 11, lines 14-21 and 46-54 and col. 12, lines 48); and a hard disk connecting unit enabling the connection and linking between the hard disk controller and the very small-sized hard disk (fig. 2 and col. 11, lines 14-21 and 46-54 and col. 12, lines 25-48).

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Fletcher fails to explicitly teach that the hard disk unit includes a very small-sized hard disk, which has a size of about 1 square inch (abstract and col. 2, lines 34-41), and a storage capacity of 1 to 100GB. However, Sherman discloses such on (col. 4, line 66-col. 5, line 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to improve the device as disclosed by Fletcher and Ditzik with the above teachings from Sherman, the motivation being more data capacity per square inch, hence smaller devices with higher storage capacity therefore making digital files portable and readily available.

Furthermore, changes in size or proportion hold no patentable weight because the only difference between the prior art and the claims are a recitation of relative dimensions of the claimed apparatus and an apparatus having the claimed relative dimensions would not perform differently than the prior art apparatus. (*see In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984)).

RE claim 5, the combination of Fletcher, Ditzik and Sherman is relied upon for the same reasons of rejection as stated above. Fletcher further discloses that the hard disk controller has inside a hard disk controller IC, the hard controller IC supporting the ATA/ATAPI mode or compact flash type (col. 13, lines 50-60).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher and Ditzik and furthering view of Wu (USPN 6,522,534).

RE claim 6, the combination of Fletcher and Ditzik is relied upon for the same reasons of rejection as stated above. Fletcher fails to explicitly teach that the portable data storage device is of a size capable of being held by the hand and put into a pocket of a Y-shirt when carried.

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However, Wu discloses such on (fig. 5 and col. 2, lines 62-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to improve the apparatus as disclosed by Fletcher and Ditzik with the above teachings from Wu, the motivation being that the apparatus can be carried from one place to another, therefore making digital files portable and readily available.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher, Ditzik and Sherman and further in view of Bajorek et al (USPN 5,264,975), hereinafter Bajorek.

RE claim 7, the combination of Fletcher, Ditzik and Sherman is relied upon for the same reasons of rejection as stated above. Fletcher further discloses that the very small-sized hard disk includes a hard disk plate and a hard disk arm (fig. 3 and col. 12, lines 32-42); and a hard disk dedicated controller for directly controlling the hard disk arm and the hard disk plate fig. 3 and col. 14, lines 46-58).

Fletcher, Ditzik and Sherman fail to explicitly teach a hard disk connector for connecting the hard disk and the hard disk controller wherein the hard disk connector is a connector with 20 pins. However, Bajorek discloses such on (figs. 3-4 and disclosure thereof). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to improve the apparatus as disclosed by Fletcher, Ditzik and Sherman with the above teachings from Bajorek, the motivation being that the apparatus can contain a small high density disk hence affording economy and reliability.

Response to Arguments

5. Applicant's arguments; see pages 7-9, filed 22 August 2005, with respect to the rejections of claims 1-8 have been fully considered and are persuasive. Therefore, the rejection has been

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withdrawn. However, upon further consideration, a new grounds of rejection has been made.

Please refer to the rejection as stated above.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (571) 272-7554.

The examiner can normally be reached on Monday - Thursday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NFM


DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600